



PEOPLE & PRESERVATION

In 1996, employees of the National Park Service and our cooperators in research and resource management continued to make a difference in meeting complex challenges head on and protecting park resources. As the following stories indicate, natural resource preservation in the national parks brings out the best in individuals who are excited by their work and strive for high ideals. In the end, we are an organization of people whose dedication, expertise, and ability to focus on the resource preservation tasks at hand ultimately spell natural resource protection in parks. This human resource is every bit as precious as the natural resources in our care.

Persistence Kemp's Ridley returns to Padre Island

by Lissa Fox

In the 1940s, 40,000 Kemp's ridley sea turtles nested annually on a beach near Rancho Nuevo, Mexico. By the 1970s, the number of nesting turtles had dropped to 400. In only 30 years, the Kemp's ridley had become the most endangered sea turtle in the world.

In a desperate attempt to save them from extinction, an international, multiagency recovery effort was launched in 1978. In addition to protecting the Rancho Nuevo nests from the human predation that had decimated the populations, the recovery project decided to try a new and untested management strategy—create a new nesting site for the turtles in a protected area. From 1978–88, 22,507 eggs were collected in Rancho Nuevo, then incubated and released at Padre Island National Seashore, Texas, in an attempt to imprint the hatchlings on the park so that they would return there to nest. This unprecedented experiment, if successful, would not only help to ensure the continuation of the severely endangered species, but could also change the way sea turtles are managed throughout the world.

Each year, researchers and volunteers combed the beaches of the seashore, searching for nests. In 17 years of monitoring (1978–95), only seven nests were

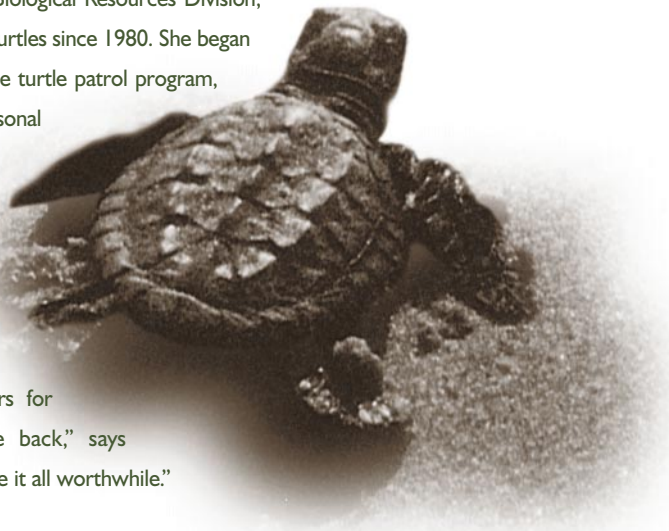
found—promising, but not as many as researchers had hoped. Finally, in the summer of 1996, the turtle recovery effort paid off big. That year, Donna Shaver, the director of the Padre Island sea turtle recovery effort, confirmed six Kemp's ridley nests on the Island! Even more exciting, two of the turtles wore tags, identifying them as part of the original releases from Padre Island. These two turtles seem to have imprinted on the seashore. If they and others continue to return to the park, as researchers now expect, the face of turtle recovery efforts will change forever. Protected areas throughout the world could serve as nesting sites for endangered turtles, significantly increasing their chances for survival.

Shaver, formerly with the National Park Service and now with the USGS Biological Resources Division, has worked with the turtles since 1980. She began as a volunteer with the turtle patrol program, then worked as a seasonal employee for five years, and finally became director of the program after receiving her graduate degree. "I've been waiting 17 years for the turtles to come back," says Shaver. "This has made it all worthwhile."

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Turtle recovery director Donna Shaver (left) watches with satisfaction as hatchling Kemp's Ridley sea turtles head out to the gulf at Padre Island National Seashore, Texas.

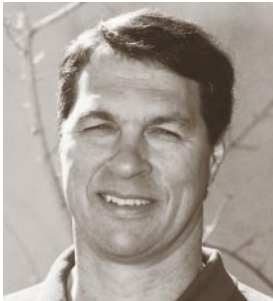
Kemp's Ridley turtle (below)



Conviction Resource specialist receives Mather award

by Jeff Selleck

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Riley Hoggard

We are not putting park natural resources on a high enough pedestal these days," according to Riley Hoggard, Resource Management Specialist at Gulf Islands National Seashore. Hoggard is the 1996 winner of the National Parks and Conservation Association-Stephen Tyng Mather Award. He received a \$2,500 cash prize from the conservation organization last November for his efforts in fighting for the relocation of an important road in the park. His strong conviction for doing what is right is likely to make a difference to nesting sea turtles and other wildlife, allowing the processes that both build and erode sand dunes to continue unimpeded.

The problem began when Hurricane Opal destroyed a 7-mile section of Highway 399 in the Florida district of the Florida and Mississippi park in October 1995. "The road was clearly in the wrong place," Hoggard explained. "It had prevented the natural migration of sand dunes. If rebuilt in the same place, it would result in an artificially steep beach that could impact nesting sea turtles and other wildlife."

Hoggard saw this act of nature as an opportunity to move the road to a more sensible location. Bolstering

his position was the park general management plan, which recognizes that roads and campgrounds are not considered permanent structures when washed out. However, pressures from local communities, economically hard hit by the storm, initially convinced park officials to agree to rebuild the road promptly in its original location. Disillusioned, Hoggard began a lonely vigil of arguing for road relocation that lasted 10 months.

To make his point, the talkative 20-year veteran of the National Park Service toured cooperators on-site to demonstrate the problems associated with the road placement. Time after time experts from the Army Corps of Engineers, U.S. Fish and Wildlife Service, and Florida Department of Environmental Protection agreed that sand dunes would reform naturally if the road were moved. Their corroboration and scientific data showed that relocation was the right course of action and would also minimize the likelihood of similar future road damage. In the end, the Federal Highway Administration funded 3 miles of road relocation because it made both ecological and economic sense. "The right time to move a road is right after a large storm like this," Hoggard continued. "Habitat is already disturbed. Additional disturbances caused by road construction are inconsequential."

Hoggard kept the issue alive until early opponents were converts. From the experience, he explained, "If we don't stand up in our local communities and say no when we have to, we will lose parks as we know them."

Ingenuity Partnership honored by National Park Foundation

by Jeff Selleck

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Bats and visitors in Big Bend National Park, Texas, are better off following the 1995 installation of habitat-preserving batgates over dangerous mine openings at the abandoned Mariscal mercury mine. The new closures allow free passage of bats, are much more effective at excluding humans, and are more in keeping with the historic fabric of the site. In April 1996, the National Park Foundation, the Congressionally chartered nonprofit fundraising partner of the National Park

Service, recognized the partnership between the National Park Service and the Railroad Commission of Texas that led to the completion of the innovative project. Presented by NPS Director Kennedy in the Rayburn House Office Building, the award went to Linda Dansby (NPS Southwest Support Office), John Burghardt (NPS Geologic Resources Division), Mike Fleming (Big Bend National Park, now retired), and Mark Rhodes (Railroad Commission of Texas) for their roles in restoring bat habitat, protecting wildlife and cultural resources from human disturbance, and improving public safety.

Dansby, who is the NPS Intermountain Region Minerals, Oil and Gas, and Geologic Resources Program Leader, was the principal coordinator for the Mariscal

project. She coordinated resource and engineering surveys and wrote the environmental assessment (EA). Fleming, then Environmental Protection Specialist at Big Bend, circulated the EA for public comment, completed the NEPA process by writing a *finding of no significant impact-decision record*, and coordinated contractor operations at the site. Burghardt, a geologist with expertise in abandoned mine closures and bat conservation issues, assisted park staff in inventorying the mine openings and identifying hazards. He also provided technical oversight with Fleming during the implementation of the contract. The \$177,000 batgate construction and installation contract was funded by the Railroad Commission of Texas, Division of Surface Mining and Reclamation, through a cooperative agreement arranged by Geologic Resources Division staff. Rhodes, who is Assistant Division Director of the Abandoned Lands Section of the Texas Surface Mining and Reclamation Division, obtained state funding

from Title IV provisions under the Surface Mining Control and Reclamation Act.

According to Dan Taylor, North American Bats and Mines Project Director for Bat Conservation International, “the Mariscal Mine closure project is one of the most extensive, innovative, and ecologically important mine closures ever undertaken in North America.” The project was completed in a timely fashion and within budget, largely due to excellent coordination by the four honorees. Reflecting on the award, Dansby said that “Mariscal Mine is a wonderful success. With over 10,000 abandoned mine hazards in the national park system, we have many opportunities for similar partnership projects.” She also observed that the “National Park Service has experienced great support from states in closing mine openings.” This is certainly true in Texas where the Mariscal effort spawned a similar project in 1996 in Guadalupe Mountains National Park, also funded by the Railroad Commission of Texas.



Mark Rhodes and Big Bend Superintendent José Cisneros

Leadership Retiring superintendent knows the value of resource management

by Steve Petersburg

Denny Huffman is a leader with natural resource preservation on his mind. In nine years as Superintendent of Dinosaur National Monument, Colorado and Utah, the 34-year veteran of the National Park Service has provided guidance in such critical efforts as endangered species recovery, rare plant inventory and management, integrated weed management, prescribed natural fire programs, riparian restoration projects, protection of river corridor ecosystems, and operation of the Flaming Gorge Dam.

Huffman has also addressed resource problems resulting from legally prescribed livestock grazing within the monument. “We competed for Natural Resource Preservation Program funds that allowed us to use range professionals from academia to do scientific range surveys,” Huffman commented. “Results are not complete, but the studies have found that some park areas are heavily impacted, particularly near water.” Huffman’s

efforts to bring grazing into some sort of resource-oriented compliance have resulted in a lawsuit against the National Park Service.

According to Huffman, timing is as important as science in resolving tough resource management issues. While Superintendent at Colorado National Monument from 1980-87, he succeeded in removing a beloved herd of nonnative bison that had been residing in the park since around 1925. “The animals were very popular, and we could not rush into a decision to remove them,” Huffman explained. “We gradually held town and park neighborhood meetings where we presented research findings that indicated the poor health of the vegetation. Eventually, public opinion swayed and we removed the bison, but we had to be patient.”

Another key to his success has been his skill in forging alliances with park neighbors, local and state governments, other federal agencies, and private conservation organizations. “We tend to focus rather narrowly on our own disciplines and mission in the National Park Service,” says Huffman. “We also need to understand our neighbors and the social, political, and economic factors surrounding park protection issues. We can still be very influential and come from a position of respect.” At Dinosaur,

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Denny Huffman

these associations have improved local community and interagency support, led to resource sharing, and funded many resource management, research, and visitor services activities through outside sources.

Planning to retire in early 1997, Huffman has always taken a strong and proactive public stand for the protection and restoration of park resources and their values. He explains, "our efforts in maintaining good outside relationships should never eclipse our responsibili-

ties for resource protection. Resource protection must always be our top priority." While some individuals in other agencies and local communities may have disagreed with him, they have never been able to claim they were unaware of the positions and policies of the National Park Service. His efforts have led to increased awareness, better protection, and improved management of natural and cultural resources in many units of the national park system.

Special skills **Air quality at Big Bend is an international challenge**

by Miguel Flores

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Miguel Flores (right) demonstrates how to change a particle filter at an air sampling site east of San Antonio, Texas.

Since 1993, staff from the NPS Air Resources Division and Big Bend National Park, Texas, have been involved in a binational effort with Mexico to improve air quality at the park. At issue is the extent to which air pollution emissions from regional sources, including those from two coal-fired power plants located 12 miles south of the U.S.-Mexico border near Piedras Negras, Coahuila, contribute to visibility degradation in the Big Bend region. Long-time residents of and visitors to the area report worsening vistas, particularly in recent years. Previous NPS studies have implicated emissions from Mexico as being the primary contributor to visibility degradation at the park, especially during summer.

The Clean Air Act mandates visibility protection in Class I areas such as Big Bend. Mexican statutes, however, have no similar provisions. Although the two power plants comply with Mexican environmental laws, they have no pollution control devices for sulfur dioxide. As a result, they emit between 160,000 and 240,000 tons of the pollutant annually. This is of great concern to the National Park Service because these emissions convert into sulfates in the atmosphere, fine particles that cause 40%–50% of the visibility degradation observed at the park.

Big Bend lies approximately 130 miles northwest of the power plants and is directly downwind of the emissions during summer. Air quality modeling studies

performed by the Air Resources Division confirm that emissions from these power plants reach the park and contribute significantly to regional haze. Although the National Park Service considers these emissions responsible for causing significant visibility degradation, the actual contribution they make to the overall visibility impairment at the park is the subject of debate between the two governments.

A binational technical work group, including NPS representation, has investigated the issue since November 1993, and in March 1996 jointly recommended that a regional approach be taken to resolve the problem. Insufficient data exist now to determine whether control of the power plant emissions would solve the Big Bend visibility problem. Accordingly, we have worked with the EPA and the Mexico Procuraduría Federal de Protección al Ambiente to design regional air quality monitoring studies that identify the specific emission source regions and types primarily responsible for the air quality problem at the park. In summer 1996, a preliminary study was conducted involving 19 sampling locations in northern Mexico and southwest Texas. The findings will be used to design more intensive studies to be conducted in winter and summer 1998.

Representing the Park Service on the binational work group is Miguel Flores of the Air Resources Division. Also involved in the issue is José Cisneros, Superintendent of Big Bend National Park. Both are natives of south Texas and have found their work on this issue to be incredibly rewarding and challenging. Their bilingual skills and knowledge and understanding of the Mexican people, their culture, and their political and economic systems, have proven to be invaluable assets during bilateral negotiations.

Last summer's air sampling study, funded by EPA, marked the first time that both countries joined to investigate transboundary air pollution as it relates to visibility impairment in protected areas on both sides of the border.

We hope to continue working cooperatively to investigate appropriate bilateral emission control strategies that will improve air quality in Big Bend and recapture some of the scenic vistas for which the area has been known.

Diversity Director honors natural resource stewards

by Jeff Selleck

"Hawaii may be providing the national park system with a taste of things to come," according to Superintendent Bryan Harry of the Pacific Islands Support Office. Harry was referring to the challenge of dealing with fire-adapted nonnative grasses in the Pacific islands parks. "While island ecosystems are the first to feel the severity of effects of nonnative species, the mainland will face the same challenges in the future." Last August, he and two colleagues received the 1996 Director's Awards for Natural Resource Management. Given annually to a superintendent, resource manager, and researcher, the prestigious honor underscores the importance of technical expertise, continuity, and innovative thinking in research and natural resource management.

Harry was recognized for his influence in conserving vestiges of native Pacific ecosystems over the last 25 years. He and his staff changed the mind set in Hawaiian parks from accepting "inevitable" resource deterioration to proactive management that reverses deterioration. "We also shifted our concept of measuring success from how many alien animals we killed to basing removal decisions on the overall impacts the nonnative species have on the native populations."

Also winning an award was Terry Hofstra, Chief of Resource Management at Redwood National and State Park, California. Despite the threat of nearby logging to the Marbled Murrelet, an endangered bird that nests in old-growth redwoods, Hofstra saw the potential for long-term benefit. By preparing a second-growth forest management plan before logging could ensue, the parks positioned themselves to accept funds, mandated by the Endangered Species Act, from the logging company to counter habitat

disruption. If its logging request is approved, the company would fund thinning of 10 acres of second-growth forest on park land for every acre of old-growth disturbed on private land. Thinning speeds recovery to old-growth, increasing future habitat for murrelets. Hofstra sees this as "a timely and much needed example of the flexibility of the act in providing for endangered species preservation while accommodating some commercial activities." Hofstra is also a leading proponent of inter- and intra-agency and private sector cooperation. During his tenure, he has helped the parks advance toward ecosystem management and address a broader range of natural resource issues. In that time, his staff has progressed considerably in mitigating erosion from logging roads.

Paul Buckley was honored for the application of his research to park resource management over the past 25 years. His work has typically explored the interplay between resource recreation uses and their impacts on the population and health of plants and animals. A Senior Scientist in ecology with the USGS Cooperative Park Studies Unit at the University of Rhode Island, Buckley is an expert in population biology of shorebirds and the biodiversity of birds in northeastern national parks. Working as shorebird ecologist in the late 1970s, he assisted the National Park Service in gaining colonial water bird and Piping Plover habitat protection in the face of numerous beach nourishment projects along Fire Island National Seashore in New York. Thanks in large measure to NPS management in coastal parks and seashores, the plover is now making a comeback.

Winning the award was extremely satisfying to Buckley because, as he put it, "my colleagues and I have been very persistent over the years pursuing critically needed park research projects. There is tremendous need for much more site-specific inventory and general ecosystem research in our parks. Such research is essential to the long-term management of the natural resources under our care."

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Bryan Harry



Terry Hofstra



Paul Buckley